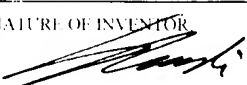
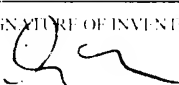
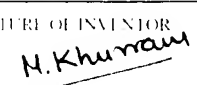


APPLICATION FOR UNITED STATES PATENT
DECLARATION AND POWER OF ATTORNEY

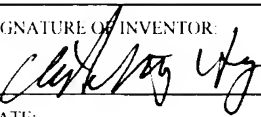
As a below named inventor, I declare that my residence, post office address and citizenship are as stated below next to my name; that I verily believe that I am the original, first and sole inventor if only one name is listed below, or an original, first and joint inventor if plural inventors are named below, of the subject matter which is claimed and for which a patent is sought on the invention entitled as set forth below, which is described in the attached specification; that I have reviewed and understand the contents of the specification, including the claims, as amended by any amendment specifically referred to in the oath or declaration; that no application for patent or inventor's certificate on this invention has been filed by me or my legal representatives or assigns in any country foreign to the United States of America; and that I acknowledge my duty to disclose information which is material to the patentability of this application in accordance with Title 37, Code of Federal Regulations, section 1.56;

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

TITLE OF INVENTION: <p align="center">Frequency Synthesizer With Digitally-Controlled Oscillator</p>		
I hereby claim the benefit under 35 U.S.C. 119(e) of United States provisional application(s): U.S. Ser. No 60/286,572, filed April 25, 2001, entitled "Frequency Synthesizer Architecture of the Digital Radio Processor (v2.0)" U.S. Ser. No 60/313,749, filed August 20, 2001, entitled "Frequency Synthesizer With Digitally Controlled Oscillator"		
POWER OF ATTORNEY: I HEREBY APPOINT THE FOLLOWING ATTORNEYS TO PROSECUTE THIS APPLICATION AND TRANSACT ALL BUSINESS IN THE PATENT AND TRADEMARK OFFICE CONNECTED THEREWITH <p align="center">Practitioners at Customer Number: 23494</p>		
SEND CORRESPONDENCE TO: Ronald O. Neerings, Esq. Texas Instruments Incorporated P. O. Box 655474 MS 3999 Dallas, Texas 75265		DIRECT TELEPHONE CALLS TO: Ronald O. Neerings, Esq. Phone Number: (972) 917-5299 Fax Number: (972) 917-4418
NAME OF INVENTOR: (1) Robert B. Staszewski	NAME OF INVENTOR: (2) Dirk Leopold	NAME OF INVENTOR: (3) Khurram Muhammad
RESIDENCE & POST OFFICE ADDRESS: 413 W. Muirfield Rd Garland, Texas 75044	RESIDENCE & POST OFFICE ADDRESS: 7901 Pirates Cove Plano, Texas 75025	RESIDENCE & POST OFFICE ADDRESS: 430 Buckingham Rd. #417 Richardson, Texas 75081
COUNTRY OF CITIZENSHIP: US	COUNTRY OF CITIZENSHIP: Germany	COUNTRY OF CITIZENSHIP: Paki-tan
SIGNATURE OF INVENTOR: 	SIGNATURE OF INVENTOR: 	SIGNATURE OF INVENTOR: 
DATE: 11-21-01	DATE: 10/21/01	DATE: 10/26/01

ATTORNEY'S DOCKET NO.

TI-33176

NAME OF INVENTOR: (4) Chih-Ming Hung	NAME OF INVENTOR	NAME OF INVENTOR
RESIDENCE & POST OFFICE ADDRESS: 7325 Chadwick Dr McKinney, Texas 75070	RESIDENCE & POST OFFICE ADDRESS	RESIDENCE & POST OFFICE ADDRESS
COUNTRY OF CITIZENSHIP: Taiwan	COUNTRY OF CITIZENSHIP	COUNTRY OF CITIZENSHIP: Pakistan
SIGNATURE OF INVENTOR: 	SIGNATURE OF INVENTOR	SIGNATURE OF INVENTOR
DATE: 11/21/01	DATE	DATE

11/21/01